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BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Application Number: 10/014,727 Filing Date: December 10, 2001 Appellant(s): HEDMAN ET AL.

Todd E. Fitzsimmons
<u>For Appellant</u>

EXAMINER'S ANSWER

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This is in response to the appeal brief filed 3/25/2010 appealing from the Office action mailed 6/20/2008.

(1) Real Party in Interest

The examiner has no comment on the statement, or lack of statement, identifying by name the real party in interest in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The following is a list of claims that are rejected and pending in the application:

Claims
$$18 - 23$$
, $26 - 30$, $36 - 40$ and $42 - 55$

(4) Status of Amendments After Final

The examiner has no comment on the appellant's statement of the status of amendments after final rejection contained in the brief.

(5) Summary of Claimed Subject Matter

The examiner has no comment on the summary of claimed subject matter contained in the brief.

(6) Grounds of Rejection to be Reviewed on Appeal

The examiner has no comment on the appellant's statement of the grounds of rejection to be reviewed on appeal. Every ground of rejection set forth in the Office action from which the appeal is taken (as modified by any advisory actions) is being maintained by the examiner except for the grounds of rejection (if any) listed under the subheading "WITHDRAWN REJECTIONS." New grounds of rejection (if any) are provided under the subheading "NEW GROUNDS OF REJECTION."

(7) Claims Appendix

The examiner has no comment on the copy of the appealed claims contained in the Appendix to the appellant's brief.

(8) Evidence Relied Upon

4817329	FORBES	4-1989
5806238	BRENNER et al	9-1998
1885854	MONTELLANO	2-1930

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

⁽a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the

subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 18, 19, 20, 21, 22, 23, 26-30, 36-40, and 42-43, 44-55 are rejected under 35 U.S.C. 103(a) as being unpatentable over Forbes '329 in view of Brenner et al. (US 5806238). Forbes and Brenner show insect destroying methods. In reference to claims 18, 20, and 26, Forbes shows most of the method steps recited such as providing an ingress duct 51, heating a gas by burner 25 to a temperature lethal to a predetermined species as disclosed by Forbes in column 4, lines 22-63. Forbes shows directing the heated gas into the enclosure in Fig. 1 using ingress duct 41. Forbes show extracting or exhausting heated gas in column 4, lines 8-12. However, Forbes does not disclose filtering the heated gas from the enclosure for extracting heat killed organisms before the heated gas is released to an external environment. The patent to Brenner shows using heat and a vacuum to destroy insects. Brenner who discloses a filter system 84 with four filters 86 and a HEPA filter 108. In reference to claims 18, 20, 26, it would have been obvious to provide Forbes with an extraction step as shown by Brenner who filters the outflow for the purpose of removing dead organisms before the outflow is released to an external environment. In reference to claims 19, 22, and 30, Brenner discloses a HEPA filter. It would have obvious to provide Forbes with a HEPA filter as shown by Brenner to remove fine particulate from the heated gas. In reference to claims 21, 27, Forbes discloses 120 degrees F in column 4, lines 31-40. In reference to claim 36, Forbes discloses venting through a ventilation duct in column 3, lines 16-17. In reference to claim 37, it would have been obvious to provide the method of Forbes as

modified by Brenner with a filter system 84 as disclosed by Brenner to trap organisms killed during the operation of the method recited. In reference to claim 38, it would have been obvious to return filtered air to the interior since Forbes discloses recalculating air in column 2, lines 50-53. In reference to claim 39, Brenner discloses using suction to pull air from an enclosure and it follows that the filter be placed before the suction to ensure proper operation as shown by Brenner. Hence, it would have been obvious to provide the method of killing organisms as shown by Forbes with suction downstream of the filter as shown by Brenner to collect organisms and insects including insect particles in the filter. In reference to claim 40, Forbes discloses heating outside the enclosed structure in Figure 1 noting burner 25. In reference to claim 42, Forbes shows directing heated gas into the interior portion using a duct 51. In reference to claim 43, Forbes discloses heating for about one hour in column 4, line 54. In reference to claims 44, 48, and 49, Forbes discloses covering sections of the structure with thermal insulation material 20, 58. In reference to claims 45-47, and 50-52, Forbes monitors temperature but does not disclose if the temperature is monitored from outside the structure and the temperature signal is sent wirelessly to a console located outside the enclosure. It would have been obvious to monitor the temperature from outside the structure to prevent overheating the treatment operators. In reference to claim 53, Forbes monitors temperature from inside the structure noting column 4, lines 31-45. In reference to claim 54, Forbes discloses at least one temperature probe within the structure. In reference to claim 55, it is not clear how Forbes communicates the temperature, but clearly uses a temperature sensitive probe. However, it would have been

obvious to communicate the temperature to a console outside of the structure to preclude an operator from having to remain inside the structure and also to prevent an operator from having to go in and out of the structure which would release heat to the outside.

Claims 18, 20, 21, 23, 26-29, 36-40, 42-43, 44-55 are rejected under 35 U.S.C. 103(a) as being unpatentable over Forbes in view of Montellano.

The patents to Forbes and Montellano show insect and pest destroying. Montellano shows a system for sanitizing an enclosed structure having an extraction unit 2, 3, in communication with the enclosed structure as shown in Fig. 1. The baffle of metallic cloth 3 removes toxic substances from within the enclosed structure. It would have been obvious in reference to claims 18, 20, 21, 23, 26-29, 36-40, and 42-43 to provide Forbes with a filter screen as shown by Montellano for the purpose of collecting dead insects to assess the effectiveness of the system. In reference to claims 44-55, see the rejection of these claims, above.

(10) Response to Argument

I. The Forbes Reference

Applicant argues in page 3 of the Appeal Brief that Forbes fails to disclose or suggest the extraction of dead organisms from the treated structure with the use of a step of filtering the heated interior air to remove fine particulate remains from the organisms suspended in the heated gas. However, the Office action filed 6/20/2008 addresses this limitation with the use of the Brenner et al and Montellano references to teaches placing a filter in the

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exhaust of the Forbes structure that would aid in removing/filtering the dead organisms from the heated gas.

Applicant argues that Forbes fails to disclose or suggest the use of temperature probes to monitor temperatures inside the structure. However, Forbes discloses in col. 4; lines 15 – 19 that the enclosure is heated until it reaches an "intended temperature", which indicates that there is a temperature monitoring probe to monitor when it reaches said intended temperature.

II. The Brenner Reference

Applicant argues on page 4 of the Appeal Brief that Brenner does not use a filter to filter remains of organisms from heated air. However, Brenner et al teaches a HEPA filter which could be placed in the Forbes structure before the heated gas in Forbes is exhausted in order to trap fine particulate remains of the organisms.

III. The Montellano Reference

Applicant argues that Montellano fails to teach the step of filtering to remove microorganisms and other microscopic particles and that it does not disclose the use of heat to kill organisms. However, the Montellano reference in combination with the Forbes reference as provided in the Office Action of 06/20/2008 does teach the use of heat to kill organisms. Furthermore, the filter 3 of Montellano teaches trapping the insects before the air within an enclosure is exhausted into the ambient air (Page 2 lines 95 - 106).

IV. Claims 18 – 23, 26 – 30, 36 – 40 and 42 - 55 (35 U.S.C. 103(a) over Forbes in view of Brenner)

Applicant argues that Forbes in view of Brenner et al does not teach the steps of heating a gas, directing heated gas into an enclosure, monitoring the temperature of the enclosure, or filtering the heated gas to remove fine particulate remains from the organisms that are suspended in the gas. However, all of these limitations are taught by Forbes in view of Brenner since Forbes teaches the steps of heating a gas and directing it into an enclosure (See Abstract and Fig. 1 of Forbes) and monitoring the temperature of the enclosure (See Col. 4; Lines 15 - 19 of Forbes). Brenner et al teaches a HEPA filter which could be placed in the Forbes structure before the heated gas in Forbes is exhausted in order to trap fine particulate remains of the organisms.

In response to the declaration of Michael Geyer, the declarations under 37 CFR 1.132 filed Feb. 22, 2005 to Geyer and to Linford are insufficient to overcome the rejection of claims 18-23, 26-30, 36-40, and 42-43 based upon Forbes in view of Brenner et al because: showing is not commensurate in scope with the claims, fails to set forth facts, and states that the claimed subject matter solved a problem that was long standing in the art. However, there is no showing that others of ordinary skill in the art were working on the problem and if so, for how long. If others were not working on the problem, then there was no long standing problem in the art. In addition, there is no evidence that if persons skilled in the art who were presumably working on the problem knew of the teachings of the above cited references; they would still be unable to solve the problem. See MPEP § 716.04. Claim 18 does not recite that the organisms are micro-organisms and that the filter used to remove them is a HEPA filter (Brenner et al teaches a HEPA filter) as detailed in paragraphs 7 and

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14 of the declaration to Geyer. In fact some of the subject matter that both declarations discuss, like the microorganisms from mold, has been deleted from the claims such as claims 23 and 30. Also, it is not clear if the heat tolerant HEPA filter air scrubber recited in paragraph numbered 7 of Geyer is the one used in the present invention. Also, the declarations talk about filtering in conjunction with re-circulating the heated air as in paragraph numbered 8 in the Linford declaration. However, this feature is not recited in claim 18 or other independent claims for that matter. In view of the foregoing, when all of the evidence is considered, the totality of the rebuttal evidence of nonobviousness fails to outweigh the evidence of obviousness.

As to the declaration by Dr. Abbott, the examiner does not disagree with the increased airborne microorganism levels as a result of flood damage and that traditional methods to treat buildings contaminated by mold, bacteria, termites, dust mites may increase the level of bio-aerosol particulate matter. However, the objective evidence of nonobviousness is not commensurate in scope with the claims. As to the declaration by Mr. Larry Chase regarding commercial success, applicant has not provided objective evidence as to market share, and cost of advertising which precludes the declaration achieving a desired result. Hence applicant has not proved the secondary considerations to a level that would overcome the art of record as a whole. Thus, the current rejections under 35 USC 103 remain.

V. <u>Claims 18, 20, 21, 23, 26 – 29, 36 – 40 and 42 – 55 (35 U.S.C. 103(a) over Forbes in view of Montellano)</u>

Applicant argues that Forbes in view of Montellano does not teach the steps of heating a gas, directing heated gas into an enclosure, monitoring the temperature of the enclosure, or filtering the heated gas to remove fine particulate remains from the organisms that are suspended in the gas. However, all of these limitations are taught by Forbes in view of Montellano since Forbes teaches the steps of heating a gas and directing it into an enclosure (See Abstract and Fig. 1 of Forbes) and monitoring the temperature of the enclosure (See Col. 4; Lines 15 - 19 of Forbes). The filter 3 of Montellano teaches trapping the insects before the air within an enclosure is exhausted into the ambient air (Page 2 lines 95 - 106).

The declarations under 37 CFR 1.132 filed Feb. 22, 2005 to Geyer and to Linford are insufficient to overcome the rejection of claims 18-23, 26-30, 36-40, and 42-43 based upon Forbes in view of Montellano as set forth in the last Office action because: showing is not commensurate in scope with the claims, fails to set forth facts, and states that the claimed subject matter solved a problem that was long standing in the art. However, there is no showing that others of ordinary skill in the art were working on the problem and if so, for how long. If others were not working on the problem, then there was no long standing problem in the art. In addition, there is no evidence that if persons skilled in the art who were presumably working on the problem knew of the teachings of the above cited references; they would still be unable to solve the problem. See MPEP § 716.04. Claim 18 does not recite that the organisms are micro-organisms and that the filter used to remove them is a HEPA filter as detailed in paragraphs 7 and 14 of the declaration to Geyer. In fact

some of the subject matter that both declarations discuss, like the microorganisms from mold, has been deleted from the claims such as claims 23 and 30. Also, it is not clear if the heat tolerant HEPA filter air scrubber recited in paragraph numbered 7 of Geyer is the one used in the present invention. Also, the declarations talk about filtering in conjunction with re-circulating the heated air as in paragraph numbered 8 in the Linford declaration. However, this feature is not recited in claim 18 or other independent claims for that matter. The declarations particularly Linford, in paragraphs numbered 11-12, fails to set forth facts and merely gives an opinion that the prior art reference to Montellano is merely a curiosity and even if considered, would be ineffective in removing the smaller allergens that are produced during the forced-convection of thermal eradication. Since Montellano discloses metallic cloth, the mesh size must be on the order of that of cloth if the strands are the same size or the spacing between the strands must be like that of cloth. So from a typical viewing distance the metallic cloth would look like cloth. Since the spacing of a screen and a sieve is much larger than that of cloth and these devices do not look like cloth, metallic cloth would have many more strands to the inch. As the number of strands per inch increases, the smaller the particle that could be caught by the material increases. 8. In view of the foregoing, when all of the evidence is considered, the totality of the rebuttal evidence of nonobviousness fails to outweigh the evidence of obviousness.

As to the declaration by Dr. Abbott, the examiner does not disagree with the increased airborne microorganism levels as a result of flood damage and that traditional methods to treat buildings contaminated by mold, bacteria, termites, dust mites may increase

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Larry Chase regarding commercial success, applicant has not provided objective evidence as

to market share, and cost of advertising which precludes the declaration achieving a desired

result. Hence applicant has not proved the secondary considerations to a level that would

overcome the art of record as a whole. Thus, the current rejections under 35 USC 103

remain.

(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the

Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

Valentina Xavier / Michael R Mansen/

Supervisory Patent Examiner, Art Unit 3644

Conferees:

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